Shanmuga Industries Arts & Science College T.V.Malai

APRIL/MAY 2025

GCA43/DCA43 — WEB APPLICATIONS USING C#

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is the purpose of the bin directory in an ASP.NET application?
2. Define server-side events in ASP.NET.
3. What is the role of the Validator class in ASP.NET?
4. List the regular expressions and how are they used in validation.
5. Describe the concept of aggregate information in component-based programming.
6. What are data objects in the context of component-based programming?
7. What are user control events in C# and how are they handled?
8. Name one limitation of user controls in web applications.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Imagine you are building a user registration form for an online event management system using ASP.NET. Design the form layout and discuss how they contribute to a better user experience.
17. Develop a web application using ASP.NET that includes a customer registration form. Explain the validation techniques used and how they contribute to the overall functionality of the form.
18. Discuss the role of data objects in component-based programming for web applications. Explain how data objects can be used to encapsulate and manipulate data efficiently in a web application.
19. Develop a custom control in C# for a web application that displays a calendar with customizable events. Explain the steps involved in creating the custom control, including data binding, event handling, and customization options.
20. Compare and contrast connected and disconnected data access in ADO.NET. Discuss their advantages, disadvantages, and scenarios where each approach is most suitable.

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9. List one method for updating data in a database using ADO.NET.

10. What is the significance of disconnected data in ADO.NET?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain the purpose and usage of the Server Utility class in ASP.NET.

Or

(b) Determine the importance of HTML server controls in web application development and provide examples of commonly used HTML server controls.

12. (a) Explain the concept of server-side validation in ASP.NET. How does it differ from client-side validation?

Or

(b) Discuss the importance of regular expressions in validation and provide an example where regular expressions are used for validation.

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13. (a) Elucidate the concept of aggregate information in the context of web application development. How can it be utilized to improve performance and efficiency?

Or

(b) Discuss the role of data objects in component-based programming. Explain their importance and how they are utilized in web application development.

14. (a) What are some common limitations of user controls in web applications? Provide three examples.

Or

(b) Illuminate the concept of deriving custom controls in C# and discuss its significance in web application development.

15. (a) Describe the basics of XML in .NET and its role in ADO.NET. How can XML be used for data storage and exchange in web applications?

Or

(b) How can you validate XML documents in ADO.NET? Explain the process of creating XML schema (XSD) documents and validating XML files against those schemas.